GLOBALPLATFORM®

THE STANDARD FOR SECURE DIGITAL SERVICES AND DEVICES

GlobalPlatform

Self-Testing and Product Qualification Processes

Version 1.2.2

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1 Introduction

The Product Qualification Process is a verification by GlobalPlatform that a Product as defined in section 2.1 has demonstrated sufficient conformance to the GlobalPlatform Specifications [Specs] and (if applicable) to a specific Configuration [Configs].

The Product Qualification Process described in this document addresses only functional evaluations.

Please check the GlobalPlatform website for the latest applicable documents including Operation Bulletins. In case of differences, the website published version of documents supersedes the information in this document.

1.1 Audience

This document describes the Product Qualification Process procedures to be followed by GlobalPlatform, Product Vendors, Test Tool Vendors, and Qualified Laboratories.

It is assumed that the reader is familiar with GlobalPlatform Specifications and Configurations.

1.2 IPR Disclaimer

N/A

1.3 References

Table 1-1 : Normative References

Standard / Specification	Description	Ref
GlobalPlatform Specifications	**For Card Products**: GlobalPlatform Card Specification GlobalPlatform Amendments to the Card Specification (A, B, C, D, E,F,G,H) **For TEE Products:** GlobalPlatform Device Technology – TEE Internal API Specification v1.0 GlobalPlatform Device Technology – TEE Client API Specification v1.0	[Specs]

Standard / Specification	Description	Ref
GlobalPlatform Configurations	**For Card Products:** GlobalPlatform Card configurations, including the following (and others to be published): • UICC Configuration – latest version • UICC Configuration – Contactless Extension – latest version • Mapping Guidelines Implementation – latest version • Basic Financial – latest version • SWP and HCI test suite –v1.0 and v2.0 • ID Configuration – latest version • Common Implementation Configuration – latest version • Secure Element Configuration – latest version • Secure Element Access Control – latest version • SE Contactless Extension based on Amendment C – latest version • eUICC v2.1 and v3.1 **For TEE Products:** • TEE Initial Configuration v1.1	[Configs]
Qualification and Listing Agreement	Latest version available on the GP website	[QLA]
Trademark License Agreement	Latest version available on the GP website	[TLA]
Supported Configuration Options Form	Latest version available on the GP website	[SCO]
Non-Conformance Investigation Agreement	Latest version available on the GP website	[NCIA]
Self-Tested Product Listing Agreement	Latest version available on the GP website	[LA]
Test Report Template	Latest version available on the GP website	[TRT]

1.4 Terminology and Definitions

Table 1-2: Terminology and Definitions

Term	Definition
Card Product	A Card Product is comprised of an Integrated Circuit, Operating System, and necessary components (Security Domains, on-card APIs, etc.) to implement a specific GlobalPlatform Configuration, regardless of its form factor: ID1, SIM, etc.
Compliance Assessment Report	A report generated by the Compliance Secretariat if the Product Vendor accepts the quotation provided in a Non-Conformance Investigation Agreement [NCIA] when a Test Report shows less than 100% of successful tests.
Compliance Secretariat	The GlobalPlatform entity that manages the Product Qualification Process.
Configuration	A specific implementation guide defining a set of functionality according to the GlobalPlatform Specifications associated with implementation rules.
Conformance	Meeting all GlobalPlatform requirements defined for the Product Qualification Process including implemented optional requirements.
Delta Testing	Testing based on the difference between the Test Suite versions since the original LOQ, i.e. all complete test packages in which tests have been modified or added.
Derivative Product	A Product derived from a Qualified Product, where the changes are limited as described in section 4.6.
Differential Testing	Testing based on the difference of functionality between the derivative and original product, i.e. all complete test packages in which some functionality has been modified or added.
Letter of Qualification	A written statement that documents the decision of GlobalPlatform that a specified Product has demonstrated sufficient conformance to the GlobalPlatform Specifications as of its test date.
Letter of Rejection	A written statement that documents the decision of GlobalPlatform that a specified Product has NOT demonstrated sufficient conformance to the GlobalPlatform Specifications as of its test date.
Listing Agreement	An agreement that defines the terms and conditions whereby GlobalPlatform agrees to publicly list on its website a Self-Tested Product.
Product	A device following specific GlobalPlatform Specifications and Configurations, that will be submitted to the Product Qualification Process described in this document.
Product Change	A Product that is sent for qualification in order to replace an already listed Product
Product Qualification Process	The steps necessary for a Product to obtain a GlobalPlatform Letter of Qualification.

Term	Definition
Product Qualification Process documentation	Set of documents and procedures issued by GlobalPlatform describing GlobalPlatform Product Qualification Process procedures.
Product Sample	A sample representative of a specific Product provided to a laboratory for testing.
Product Vendor	The entity that submits a Product to GlobalPlatform for the Product Qualification Process.
Qualification and Listing Agreement	An agreement that defines the terms and conditions whereby GlobalPlatform agrees to publicly list on its website those Test Tools, Products, and Qualified Laboratories that have satisfied prerequisite requirements to be granted such listing. In this document, Qualification and Listing Agreement means the complete agreement or (if the vendor has previously signed a full Qualification and Listing Agreement) only Exhibit A – Qualification Request.
Qualified Laboratory	A Qualified Laboratory facility that has received written validation by GlobalPlatform that the facility has satisfied all GlobalPlatform prerequisite requirements and conditions for the purposes of performing testing services on Products according to GlobalPlatform Product Qualification Process procedures.
Qualified Product	A specific Product that has received written validation from GlobalPlatform that the Product has satisfactorily demonstrated sufficient conformance to the relevant and then current GlobalPlatform Specifications and Configuration.
Qualified Test Tool	A Test Tool that has received written validation from GlobalPlatform that the Test Tool has satisfactorily demonstrated compliance with the relevant and then current GlobalPlatform Configuration at or in connection with an applicable GlobalPlatform “TestFest”.
Regression Testing	Limited testing performed during Derivative (see section 4.6) or Change product qualification request (see section 4.7).
Self-Tested Product	A specific Product that GlobalPlatform agrees to list on its website as having submitted documents indicating that the Product Vendor has performed testing to confirm sufficient conformance to the relevant and then current GlobalPlatform Specifications and Configuration
Supported Configuration Option	Options supported by a Product from the proposed options offered by the GlobalPlatform Specifications.
TEE Product	A TEE Product is comprised of an platform hardware (System on Chip), the set of GlobalPlatform TEE components such as: Services, TEE Communication agent, TEE Internal API and command processing, regardless of its form factor: device, smart phone
Test	Any activity that aims at verifying the conformance of a selected product or process to a given requirement under a given set of conditions.
Test Case	A description of the actions required to achieve a specific test objective.

Term	Definition
Test Report	A document provided by a Qualified Laboratory containing the Test Result and the Supported Configuration Option for a Product. This can be also provided by a Product Vendor for a self-test claim.
Test Result	A document generated by a Qualified Test Tool containing the results of performing a Test Suite for a Product.
Test Session	The period of time used by a Qualified Laboratory to generate a Test Report.
Test Suite	A suite of Test Cases and associated documentation generated published by GlobalPlatform that aims to verify the conformance to a Configuration.
TestFest	A meeting organized by GlobalPlatform to release a Test Suite and verify the correct implementation of the Test Suite by Test Tools.

1.5 Abbreviations and Notations

Table 1-3: Abbreviations and Notations

Abbreviation / Notation	Meaning
CAR	Compliance Assessment Report
IC	Integrated Circuit
ICC	Integrated Circuit Card
LA	Self-tested Listing Agreement ([LA])
LOQ	Letter of Qualification
LOR	Letter Of Rejection
OS	Operating System
QLA	Qualification and Listing Agreement ([QLA])
REE	Rich Execution Environment or Rich OS
SCO	Supported Configuration Options ([SCO])
TA	Trusted Application
TEE	Trusted Execution Environment
TLA	GlobalPlatform Trademark License Agreement ([TLA])
UI	User Interface

1.6 Revision History

Table 1-4: Revision History

Date	Version	Description
July 2011	1.0	Initial Release
July 2012	1.1	Integrate precisions about Derivative Products. Add references to new agreements.
December 2012	1.2	Extend the scope of the Product Qualification Process to cover qualification of other GlobalPlatform (non card) Products. Clarify the process for Product Changes.
May 2013	1.2.1	Clarify time frames Clarify Multi protocols management Clarify NCA flow Add new definition of derivative Products Clarify CAR usage
March 2017	1.2.2	Integration of operation bulletins number 8 (March 2015), and number 10 (July 2015) clarifications related to • Fees payment delay • Management fees for obsolete product qualification • Product renewal • Regression testing scope • New Test Suite management • SCO in pdf format only

2 Scope of the Self-Testing and Product Qualification Processes

This document establishes the compliance testing procedures to be used in conjunction with the applicable version(s) of the Test Suite which establish certain minimum requirements specifying how a Product Vendor may test a Product for conformance to the GlobalPlatform Specification [Specs]. Such compliance testing is limited to evaluation of a product's compliance with a GlobalPlatform Specification and is not designed to test the overall performance of any Product.

2.1 Scope of the Product

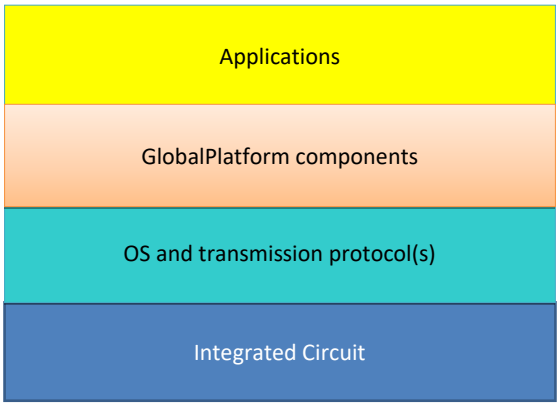
2.1.1 Card Product

As illustrated in Figure 2-1, the Card Product submitted for Product Qualification is uniquely defined as according to the Supported Configuration Options declaration (SCO):

- the GlobalPlatform Applications
- the set of GlobalPlatform components such as: Security Domains, Services, on-card APIs and command processing, according to the SCO
- the Operating System and transmission protocol(s) present in the Integrated Circuit
- regardless of any other application(s) not covered by GlobalPlatform Product Qualification Process.

This definition applies to any form factor into which the Integrated Circuit is embedded: ID1, SIM, microSD, embedded Secure Element, etc., and any I/O interface: contact, contactless, SD, etc.

Figure 2-1: Scope of the Card Product



2.1.2 Trusted Execution Environment

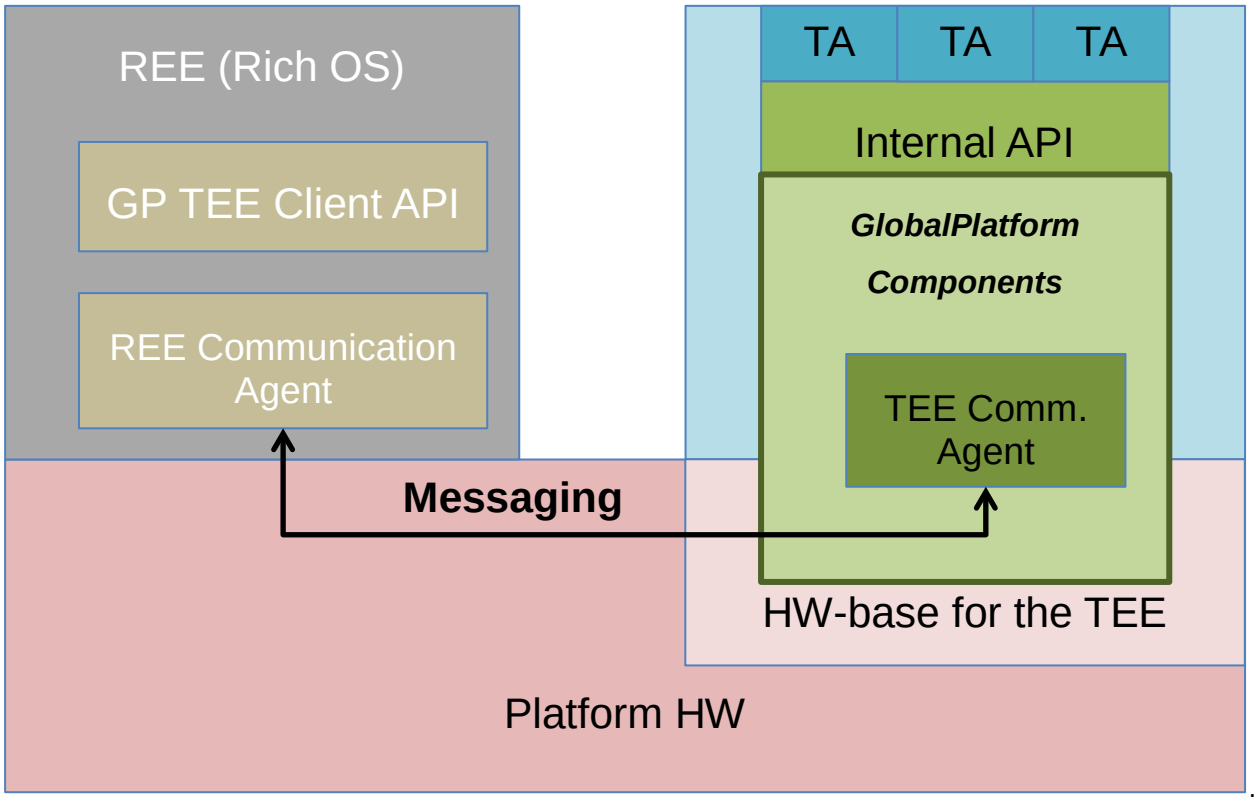
As illustrated in Figure 2-2, the TEE Product submitted for Product Qualification is uniquely defined as according to the Supported Configuration Options declaration (SCO):

- the GlobalPlatform Trusted Applications (TA) present
- the set of GlobalPlatform components such as: Services, TEE Communication agent, TEE Internal API (core and other APIs such as Trusted UI, Administration Framework, and Secure Element Access) and command processing,
- the Operating System of the Rich OS supporting an TEE Client API and the communication protocol(s) to the TEE

present in the platform hardware (System on Chip), regardless of any other application(s) not covered by the GlobalPlatform Product Qualification Process.

This definition applies to any form factor into which the platform hardware is embedded: Mobile Phone, Tablet, etc

Figure 2-2: Scope of the TEE Product



2.1.3 Other Products

This section will be enhanced in the future to define other Products that may be submitted for Product Qualification.

2.2 GlobalPlatform Tools

To support the Self-Testing and Product Qualification Processes:

- GlobalPlatform has developed a GlobalPlatform Test Suite: A test suite related to specific commands and APIs to be supported by the Product according to the GlobalPlatform Specifications. The Test Suite represents the minimum compliance testing and consists of:
  - A Matrix of coverage
  - A Test Plan
  - Test Cases — the Test Cases provided by the Test Suite ensure correct implementation of a GlobalPlatform Configuration (as declared on the SCO form).
  - A list of authorized options
  - An adaptation layer
- GlobalPlatform organizes a TestFest to verify correct implementation of the Test Suite by a Test Tool. Based on the result of the TestFest, GlobalPlatform delivers a Letter of Qualification to a Test Tool Vendor that has demonstrated correct implementation of the Test Suite in the Test Tool.

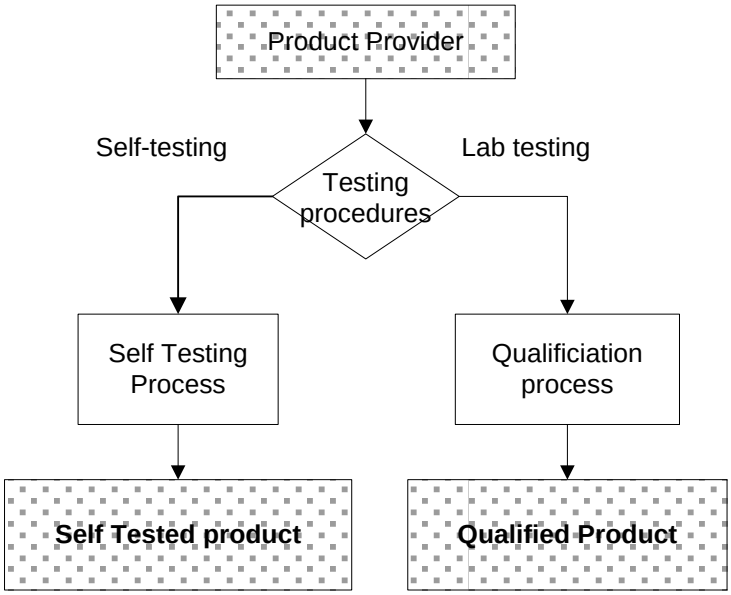
All Test Results used in the Product Qualification Process shall only by generated by a Qualified Test Tool.

2.3 Self-Testing and Product Qualification Processes

As illustrated in Figure 2-3, a Product Vendor has two possibilities for showing correct support of GlobalPlatform Specifications:

- Self-Testing: Execute the applicable Test Suite internally using a Qualified Test Tool and request publication of the self-test claim on the Self-Tested Product list on the GlobalPlatform website.
- Lab Testing: Request a Qualified Laboratory to perform the applicable Test Suite procedures using a Qualify Test Tool according to the GlobalPlatform Product Qualification Process and submit a Qualification and Listing Agreement (QLA) or Exhibit A to the GlobalPlatform Compliance Secretariat.

Figure 2-3: Self-Testing and Lab Testing



2.3.1 Scope of GlobalPlatform Self-Testing

A Product Vendor may publish the result of an internal Test Session for three (3) years.

In this case the GlobalPlatform Compliance Secretariat does not issue a Letter of Qualification, but publishes the product on the Self-Tested Products list on the GlobalPlatform website.

2.3.2 Scope of GlobalPlatform Product Qualification Process

The purpose of the GlobalPlatform Product Qualification Process is to ensure qualification of Products according to the GlobalPlatform Specifications.

The Product Vendor selects a GlobalPlatform Qualified Laboratory to perform a Test Session. The Product Vendor submits the result to the GlobalPlatform Compliance Secretariat for approval. If the results are correct:

- The GlobalPlatform Compliance Secretariat issues a Letter of Qualification.
- If the Product Vendor has requested that the results be published, the GlobalPlatform Compliance Secretariat lists the product on the Qualified Products list on the GlobalPlatform website.

2.4 Debug Sessions

Debug sessions occur between the Qualified Laboratory and the Product Vendor, and are beyond the scope of the GlobalPlatform Product Qualification Process.

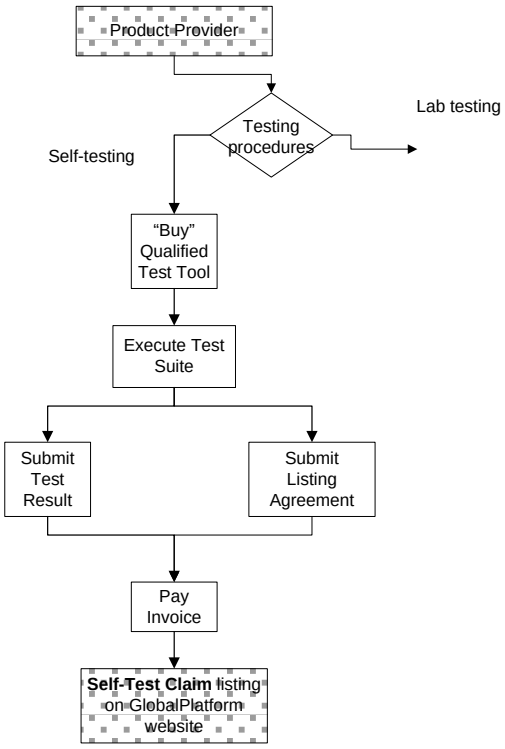
Nevertheless, any sessions using Test Suite materials owned by GlobalPlatform are part of the commercial agreement linking the Qualified Laboratory and GlobalPlatform.

3 Self-Testing Process Overview

3.1 Self-Testing Process Flow

As illustrated in Figure 3-1, a Product Vendor shall use a Qualified Test Tool to prepare a self-test claim to be submitted to the GlobalPlatform Compliance Secretariat.

Figure 3-1: Self-Testing Process Flow



3.2 Reporting Self-test Claims to GlobalPlatform

It is the Product Vendor's responsibility to ensure that all required items have been received by GlobalPlatform for self-test claims.

The Product Vendor:

- Submits the following documents signed (Electronic signature is preferred) to the GlobalPlatform Compliance Secretariat (gpcompliance@globalplatform.org):
  - The Self-tested Product Listing Agreement (LA)
  - The Supported Configuration Options (SCO) declaration. The SCO must be provided according to section 4.4, excluding the step of Laboratory verification and signature.
  - The Test Report
- Upon receipt of GlobalPlatform's invoice, pays the administrative fees to GlobalPlatform.

The GlobalPlatform Compliance Secretariat will not review the Test Result until all required items are received, including payment of all required fees.

Note: Product Vendor is responsible for the verification of its SCO; if the submitted SCO is incorrect, SCO will be rejected and a declined fee will be charged to the Product Vendor to cover secretariat management costs.

3.3 Submitting Self-tested Product Listing Agreement Form

A Self-tested Product Listing Agreement Form (LA), completed in its entirety, must be submitted to the GlobalPlatform Compliance Secretariat to start the Self-Testing process. The LA must be signed by the Product Vendor, preferably electronically.

If the Product Vendor requires a paper copy of the signed LA, the process is as follows:

- The Product Vendor:
  - Requests from the GlobalPlatform Compliance Secretariat (gpcompliance@globalplatform.org) the address to which hardcopy LAs shall be sent.
  - Sends two signed hardcopies of the LA to the address specified.
- GlobalPlatform will sign both copies of the Listing Agreement and return one to the Product Vendor.

As soon as the LA form is received, GlobalPlatform will invoice the Product Vendor. To expedite the review process, administrative fees may be paid in full before the self-test claim is available. Claims will not be reviewed until GlobalPlatform has received payment of all fees, so early payment will avoid delays.

The Self-Test Claim Fee Structure is described in Annex B.1.

Note: If requested by the Product Vendor, the Compliance Secretariat may generate in advance the invoice when receiving this demand with the LA (or the Exhibit A for subsequent submission).

Note: The LA has to be signed once by the Product Vendor when the first Product self-test claim is submitted. When submitting a self-test claim for a subsequent Product, only the Exhibit A – Self-tested Product Listing Request Form of the LA has to be signed and sent to the GlobalPlatform Compliance Secretariat.

Note: The LA to be signed must be using the latest version available on the web site. In case of submission of a subsequent Product, it is the Product Vendor responsibility to ensure that the initial LA version is still valid. If not the Product Vendor shall submit a fully new LA (using the latest version) and not only the Exhibit A.

Note: After reception of the LA / Exhibit A by the GP Compliance Secretariat, the Product Vendor shall submit to the GP Compliance Secretariat the related Product Test Report within 6 months. If the Test Report is not submitted within this period, the Listing Request becomes obsolete and 30 % of the fees listed in Annex B.1 are to be paid.

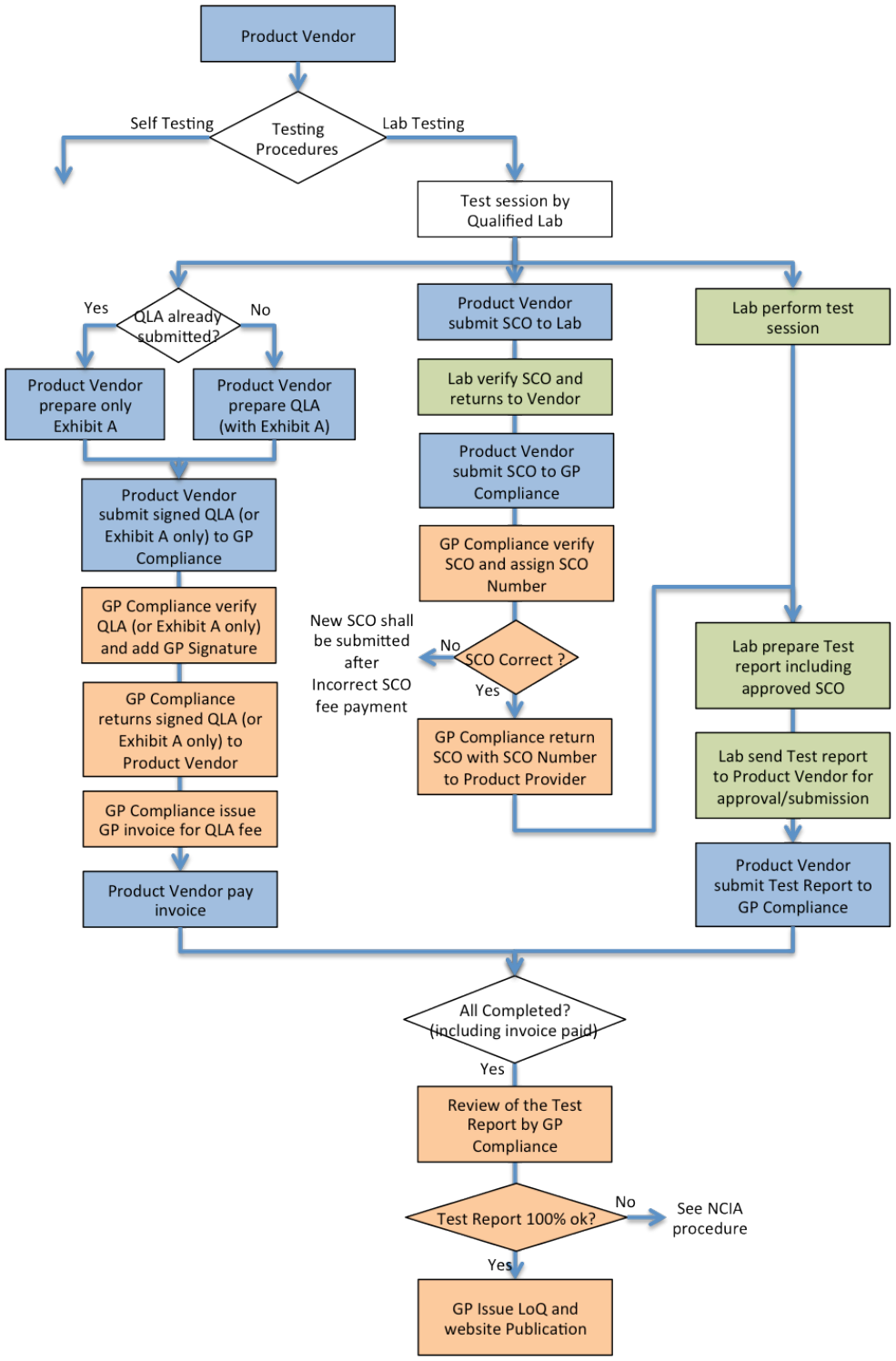
Note: Test Report cannot be changed after submission to the GlobalPlatform Compliance Secretariat, except if expressively requested by the GlobalPlatform Compliance Secretariat.

4 Product Qualification Process Overview

4.1 Product Qualification Process Flow

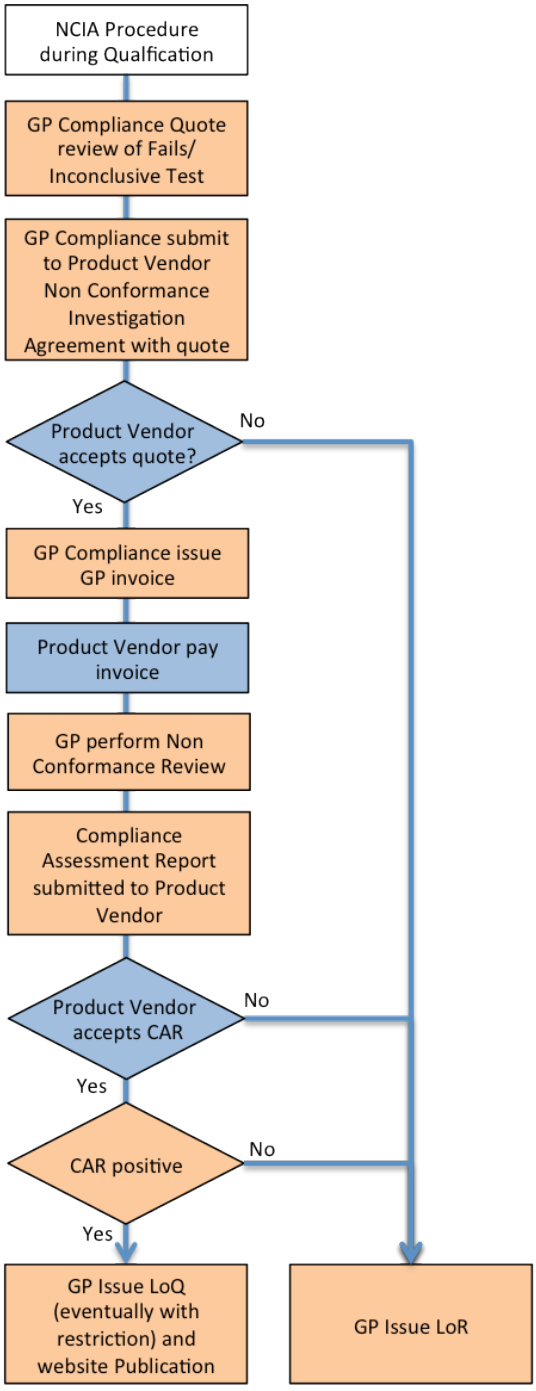
As illustrated in Figure 4-1, a Product Vendor shall select a Qualified Laboratory to submit a Qualification and Listing Agreement (QLA) form to the GlobalPlatform Compliance Secretariat.

Figure 4-1: Product Qualification Process Flow



As illustrated in Figure 4-2 a Product Vendor shall follow the non-conformance investigation process when a product is not reaching the 100% positive test result.

Figure 4-2: Non conformance investigation Flow during Qualification Process



GlobalPlatform will issue a Letter of Qualification only after the Product is tested by a Qualified Laboratory and successfully passes all tests or after a NCIA procedure ending with a positive CAR.

This Letter of Qualification entitles the Product Vendor to use the GlobalPlatform Qualification Mark in promoting the corresponding Qualified Product, according to the terms and conditions of the GlobalPlatform Trademark License Agreement [TLA].

4.2 Product Qualification Process Procedures

4.2.1 Testing Phase

The Product Vendor:

- Selects one (or more) Laboratory(ies) from the list of GlobalPlatform Qualified Laboratories published on the GlobalPlatform website, and signs any relevant bilateral agreements and contracts with the Laboratory(ies).

Note: The Product Vendor must ensure that the Qualified Laboratory chosen is independent of the Product Vendor.

- Sends Supported Configuration Options declaration (SCO) to the selected Qualified Laboratory(ies) for each Product that it submits for testing.

Note: The SCO format and contents are defined by GlobalPlatform. The SCO must be the current valid SCO form as published by GlobalPlatform on its website.

- Optionally, the Product Vendor may submit a Qualification and Listing Agreement or Request (QLA) to the GlobalPlatform Compliance Secretariat (gpcompliance@globalplatform.org) at this stage in order to receive GlobalPlatform's invoice and pay the administrative fees prior to completing testing.

The Qualified Laboratory:

- Validates that the SCO is complete and all sections and fields are consistent.
- Validates that the samples received are consistent with the SCO.
- Card Product only: Validates the personalization of the card images.
- Identifies the list of applicable GlobalPlatform Test Cases according to the SCO.
- Tests the Product and generates a Test Report(s).
- Provides the Test Report(s) to the Product Vendor.

Note: Test Result shall be based upon the current valid Test Suite version (see Chapter 6).

Note: All Test Cases shall be executed with GlobalPlatform Qualified Test Tools.

The Product Vendor:

- Submits the following to the GlobalPlatform Compliance Secretariat (gpcompliance@globalplatform.org):
  - A signed Qualification and Listing Agreement (QLA) for the initial submission (or the Exhibit A for subsequent submission) – see section 4.3.
  - The Supported Configuration Options declaration (SCO). The SCO must be provided according to section 4.4.
  - The Test Report (including the SCO approved and signed off by GlobalPlatform Compliance Secretariat)
- Upon receipt of GlobalPlatform's invoice, pays the QLA administrative fees to GlobalPlatform.
- Submits to the GlobalPlatform Compliance Secretariat (gpcompliance@globalplatform.org) any additional functional test and/or audit reports not provided with the QLA or Qualification Request.

Once the QLA or Qualification Request is complete with all materials, GlobalPlatform evaluates the Test Report. If 100% of the tests related to the SCO generate a PASS score, the GlobalPlatform Compliance Secretariat advises the Product Vendor that the functional evaluation is successful. GlobalPlatform will consider "acceptable for an approval" a functional report showing 100% successful Test Result.

If the functional evaluation is successful, the GlobalPlatform Compliance Secretariat:

- Issues a Letter of Qualification to the Product Vendor.
- Adds the Product reference to the Qualified Products List on the GlobalPlatform website (if the Product Vendor indicated in the Qualification and Listing Agreement Form that the approval should be public)
- Requests the Product Vendor to notify the Qualified Laboratory to retain the Test Report, test logs, and Samples for three (3) years following the expiration date of the Letter of Qualification

If the functional evaluation is not acceptable, the GlobalPlatform Compliance Secretariat sends to the Product Vendor:

- A Non-Conformance Investigation Agreement [NCIA] including a quotation for an analysis of the compliance of the tests related to the SCO with a non PASS (Failed or Inconclusive) score: GlobalPlatform is able to perform in-depth analysis of the failed or inconclusive tests, to check if these non PASS Test Results can be acceptable from an interoperability point of view, see section 4.2.6.
- A Letter of Rejection if the Product Vendor does not accept the quotation or if further analysis has been accepted but demonstrates that the non PASS Test Results are not acceptable.

4.2.2 General Rules for a Test Session

The following rules apply for Qualified Laboratories performing a Qualification Test Session:

- The Product Vendor must not be present during the Test Session of the Product.
- Products must be tested against the current valid Test Suite version, the most recent version (see Chapter 6). **No modifications are allowed to the Product.** If any modification is made to the Product during the Test Session, the session must end and the Product Vendor must initiate a new Test Session.
- Card Product only: If any modification is made to the card images during the Test Session (without any modification to the Product), the Qualified Laboratory must perform an impact assessment. The Test Report must identify the reason for the change and must include the Qualified Laboratory's assessment of the impact to card images and tests performed.

4.2.3 Types of Testing

All tests included in a test suite are used during the first qualification of a product.

In order to optimize the testing for Derivative product or the testing of qualified product change, the following types of testing are defined:

- Regression Testing includes a subset of tests related to the functionalities declared in the SCO.
- Delta Testing = Testing based on the difference between the Test Suite versions since the original LOQ, i.e. all complete test packages in which tests have been modified or added.
- Differential Testing = Testing based on the difference of functionality between the derivative and original product, i.e. all complete test packages in which some functionality has been modified or added.

Note: Guidelines for the selection of the Regression tests are provided to Product Vendor and Laboratory via publication of a Product Qualification Operation Bulletin. (Example Operation Bulletin nº 9 for card products).

4.2.4 Functional Test Reports

Functional Test Report must meet the following requirements:

- Test Report must be in electronic format (pdf) for review and signed electronically by the Qualified Laboratory that performed the tests.
- Reports shall be written in English and follow the latest version of the test report template [TRT].
- Test Reports must include the Product Vendor SCO (the approved SCO returned by GlobalPlatform Compliance Secretariat including assigned SCO Number and GlobalPlatform Compliance Secretariat signature).
- Test Report must list all Test Cases ordered by Test Case number (without the 'Excluded Tests' list of the related Test Suite), and each test must be designated as Pass, Fail, Inconclusive, or Not Applicable.
- Card Product only: If any modification was made to the card images during the Test Session (without any modification to the Card Product), the Test Report must identify the reason for the change and must include the Qualified Laboratory's assessment of the impact to the card images and the tests performed.
- Test Report must include a detailed description of any exception test(s) performed or equipment used and a description of the related Test Result.
- Test Report must include a detailed analysis from the Qualified Laboratory of any Test Result designated as Fail or Inconclusive
- Test Results must be based upon the current valid Test Suite version (see Chapter 6).
- Test Report cannot be changed after submission to the GlobalPlatform Compliance Secretariat, except if expressively requested by the GlobalPlatform Compliance Secretariat.

Note: If any Test Result is identified as Fail or Inconclusive in a Test Report, the Product Vendor must include an impact analysis of the non-conformance of these tests in the Test Report.

The Product Vendor determines whether the Test Result from Qualified Laboratory testing will be submitted to GlobalPlatform for evaluation. Submitting Test Report to GlobalPlatform for evaluation indicates the Product Vendor's acceptance that the Test Result(s) are a true representation of the performance of its Product. GlobalPlatform does not comment in advance on acceptance of a Test Report until the complete Test Report and payment of all required fees have been received.

Note: An issuer may want to obtain a copy of the Test Report(s). Product Vendor is fully responsible to keep the Test Report(s) available and is fully entitled to share it at its sole discretion.

Note: All Qualified Laboratories are required to archive all Test Tool versions for a minimum of three (3) years after the Test Suite version deactivation date (see Chapter 6).

4.2.5 Reporting Test Report to GlobalPlatform

It is the Product Vendor's responsibility to ensure that all required items have been received by GlobalPlatform for the issuance of the Letter of Qualification.

The GlobalPlatform Compliance Secretariat will not review the Test Reports until all required items are received, including payment of all required fees.

4.2.6 Analysis of Non-conformance

GlobalPlatform expects all Test Results in the Test Report to be successfully passed (acceptable Test Report), but if any failure or inconclusive result is identified, the Product Vendor must include an impact analysis of the non-conformance in the Qualification and Listing Agreement (or Request).

The analysis of the non-conformance by GlobalPlatform is at the Product Vendor's charge.

As illustrated in figure 4-2, the Non-Conformance Analysis process during qualification is the following:

- When receiving the failed Test Report associated with the detailed analysis from the Qualified Laboratory and the Product Vendor's impact analysis, the GlobalPlatform Compliance Secretariat sends to the Product Vendor a Non-Conformance Investigation Agreement including an investigation fee quotation.
- Product Vendor accepts the Non-Conformance Investigation Agreement [NCIA]
- Product Vendor returns a signed copy of the NCIA to GlobalPlatform Compliance Secretariat.
- The GlobalPlatform Compliance Secretariat proceeds to an in-depth analysis of the Test Report including the impact analysis provided, and will deliver a Compliance Assessment Report (CAR). The analysis report should assess if the failure(s) may (or may not) generate an interoperability impact when deploying the Product.
- If the Non-Conformance Investigation Agreement is not accepted, the GlobalPlatform Compliance Secretariat does not investigate any further and issues a Letter of Rejection (see section 4.2.8).

It is the responsibility of the Product Vendor to ensure that all required materials needed for this non-conformance analysis are received by GlobalPlatform Compliance Secretariat.

GlobalPlatform may request the Product Vendor to access all information submitted to, or received from, the Qualified Laboratory as part of the Qualification Process relating to Vendor's Product.

In the event the Test Results are inconclusive or initially fail to demonstrate the Product's sufficient conformance with GlobalPlatform Requirements, GlobalPlatform may request to retest the Product samples with one or more different Qualified Laboratories and may request that different Product samples be used in such retest before deciding whether to issue a Letter of Qualification. GlobalPlatform may also request to witness the retest procedures performed by the Qualified Laboratory(ies) before deciding whether to issue a Letter of Qualification.

If not already available and working within the Laboratory's premises, such samples should be made available by the Product Vendor to the Qualified Laboratory(ies) at no extra cost and shall pay all expenses related to such retest.

At the end of the non-conformance analysis, the GlobalPlatform Compliance Secretariat determines:

- if the Test Report is acceptable and generates a Letter of Qualification including any applicable restriction(s)
- if the Test Report is not compatible to the expected level of interoperability and generates a Letter of Rejection.

In all cases the Compliance Assessment Report (CAR) will be send by the GlobalPlatform Compliance Secretariat to the Product Vendor.

Note: From the reception of the Non-Conformance Investigation Agreement, the Product Vendor has 1 month to sign the Non-Conformance Investigation Agreement. After this period, a Letter of Rejection will be automatically generated by the GP Compliance Secretariat.

Note: From the reception of the Compliance Assessment Report (CAR), the Product Vendor has 1 month to verify and accept it. After this period, a Letter of Rejection will be automatically generated by the GP Compliance Secretariat.

Note: The Compliance Assessment Report (CAR) is issued for the Product with the associated Test Report as described above. if the Product Vendor want to use an already issued CAR for an evolution of the Product (Derivative Products, Change Products) or for a new Product (having same inconstancies than the first Product) the Product Vendor shall reference this CAR reference in the new SCO.

4.2.7 Letter of Qualification

The Letter of Qualification includes the GlobalPlatform Qualification number, the SCO and the Qualification and Listing Agreement details. It is addressed to the Product Vendor's primary contacts as identified on the QLA.

Qualification is granted for a maximum of three (3) years.

The Product Vendor must disclose any restrictions included in the Letter of Qualification to its customers including other Product Vendors to which the Product Vendor intends to sell the product.

Upon reception of the Letter of Qualification, Product Vendor is allowed to use GlobalPlatform Qualification Mark in connection with the promotion of the Qualified Product per the terms and conditions of GlobalPlatform Trademark License Agreement [TLA].

If the Product Vendor indicated on the Qualification and Listing Agreement Form that this information should be public, then the Letter of Qualification and a subset of the SCO are made available on the GlobalPlatform website's Qualified Products List.

Note: if a Compliance Assessment Report is related to a LOQ, the references of this Compliance Assessment Report will be written on this LOQ.

Note: A customer of the Product Vendor or another certification authority may want to obtain a copy of the Test Report(s), Compliance Assessment Report (if any), SCO or LOQ. Product Vendor is fully responsible to keep the Test Report(s), Non-Conformance Analysis Report (if any), SCO and LOQ available and is fully entitled to share them at its sole discretion.

The Product Qualification can be revoked at any time at the sole discretion of GlobalPlatform.

4.2.8 Letter of Rejection

The Letter of Rejection ends the management by GlobalPlatform of the QLA and Test Report of a Product that has not shown an adequate support of the Test Suite of a specific configuration.

Note: if a Compliance Assessment Report is related to a LOR, the references of this Compliance Assessment Report will be written on this LOR.

Note: A customer of the Product Vendor (e.g. an issuer) or another certification authority may want to obtain a copy of the Test Report(s), Non-Conformance Analysis Report (if any), SCO or LOR. Product Vendor is fully responsible to keep the Test Report(s), Non-Conformance Analysis Report (if any), SCO and LOR available and is fully entitled to share them at its sole discretion.

4.3 Submitting Qualification and Listing Agreement Form

A Qualification and Listing Agreement Form (QLA), completed in its entirety, must be submitted to the GlobalPlatform Compliance Secretariat to start the qualification process. The QLA must be signed by Product Vendor Company Officer, preferably electronically.

If the Product Vendor requires a paper copy of the signed QLA, the process is as follows:

- The Product Vendor:
  - Requests from the GlobalPlatform Compliance Secretariat (gpcompliance@globalplatform.org) the address to which hardcopy QLAs shall be sent.
  - Sends two signed hardcopies of the QLA to the address specified.
- GlobalPlatform will sign a copy of the Qualification Listing Agreement and return it to the Product Vendor.

As soon as the QLA form is received, GlobalPlatform will invoice the Product Vendor. To expedite the review process, administrative fees may be paid in full before the Test Report is available.

The Product Qualification Fees Structure is described in Annex B.2.

Note: On Product Vendor request, invoicing request can be done in advance in the process based on 'draft' QLA provided in advance (or the 'draft' Exhibit A for subsequent submission).

Note: The QLA has to be signed once by the Product Vendor Company Officer during the first Product Qualification. When submitting a subsequent Product, only the Exhibit A – Qualification Request of the QLA has to be signed and sent to the GlobalPlatform Compliance Secretariat.

Note: The QLA to be signed must be using the latest version available on the web site. In case of submission of a subsequent Product, it is the Product Vendor responsibility to ensure that the initial QLA version is still valid. If not the Product Vendor shall submit a fully new QLA (using the latest version) and not only the Exhibit A.

Note: After reception of the QLA / Exhibit A by the GP Compliance Secretariat, the Product Vendor shall submit to the GP Compliance Secretariat the related Product Test Report **within 6 months**. If the Test Report is not submitted within this period, the Qualification Request becomes obsolete and 30 % of the fees listed in Annex B.2 are to be paid.

4.4 Submitting Supported Configuration Options (SCO) Form

The Supported Configuration Options (SCO) is a pdf form describing the technical information of the Product submitted for GP Compliance qualification. This form needs to be filled according to the Product technical structure and shall be submitted to GP Compliance Secretariat as described in section 4.2 of the present document.

4.4.1 SCO Submission Overview

The SCO pdf form can be found on GP Compliance web page: http://www.globalplatform.org/compliance.asp.

To create the SCO to be submitted to GP Compliance Secretariat, the Product Vendor shall:

1. Download the latest version of the SCO form from GP Compliance web page,
2. Open the SCO pdf form using Acrobat Reader,
3. Populate the SCO pdf file with all information of the Product,
4. Use the 'Verify' Button located on top of page 1 to perform some pre-checking ensuring that the minimum required data (such as presence of Administrative data) is present,
5. When SCO is completed and verified, Product Vendor inserts its digital signature on the last page of the form (pdf shall be readable, and data extractible by the GP Compliance Secretariat),
6. Submit the SCO to the Laboratory for verification.
    - Laboratory verifies the SCO and if the SCO is correct, inserts its digital signature on the last page of the form.

When both Product Vendor and Laboratory digital signatures are present, SCO can be submitted to the GP Compliance Secretariat.

Note: If a Product Vendor needs to submit multiple SCOs, after the creation of the first one, the data can be re-used for subsequent SCOs using 'export' and 'import' buttons of the created SCO pdf form.

4.4.2 SCO Initial Submission

The initial submission to GP Compliance Secretariat is free of charge.

The submitted SCO must:

- Be based on the latest SCO version (pdf format) available on GP web page,
- Allow importing/exporting data in XML format,
- Be digitally signed by the Product Vendor and the Laboratory at the time of submission to GP Compliance Secretariat.

The Product Vendor submits the signed SCO to GP Compliance Secretariat for review prior to the start of the approval testing process.

GP Compliance Secretariat reviews and approves the SCO by returning the SCO digitally signed in pdf format and the official SCO number.

In case the SCO is incorrectly filled, a decline fee is charged to the Product Vendor.

4.4.3 SCO replacement Submission

One free SCO replacement is allowed during SCO life cycle; any subsequent SCO replacement requests will be charged to the Product Vendor.

SCO replacement process (Laboratory verifies the SCO before submission to GP) is similar to initial SCO submission process.

This applies to any change in the SCO made after its initial approval.

After the start of a Product test session, SCO replacement is only allowed for administrative information update (such as product name) but is not allowed for any technical information update.

Laboratory shall ensure that a SCO change request doesn't aim to hide a bug in the product (such as deactivation of a function that doesn't work properly).

SCO replacement is not allowed after Test Report submission to GP Compliance Secretariat.

Note: SCO decline process applies to the initial SCO submission as well as to any other SCO replacement request(s)

4.5 Qualification of a Derivative Product

A Product Vendor may decide to submit a Derivative Product of an initially Qualified Product. A Derivative Product is a second product based on an already Qualified Product where the changes are limited as described in section 4.6.1. Any other change to a Qualified Product is not consider as a derivation and requires a new qualification. As a result of a Qualification of a Derivative Product, GlobalPlatform will issue an LOQ for the Derivative Product, and the LOQ of the initial Qualified Product remains valid.

4.5.1 Definition of a Derivative Product

Either of the following is considered a Derivative Product:

1. A Product can be considered a Derivative Product if no additional Test Suite options are implemented. The Product is identical to the original Qualified Product except that some features are deactivated or not used. The "GlobalPlatform Configuration Description" in the SCO should be a subset of the description of the original Product (including fewer option but no new options), in that case, the following rules apply:

- If the Test Suite has not changed since the original Qualified Product, Regression Testing will be required and the Derivative Product will receive the same renewal date as the original Qualified Product.
- If the applicable Test Suite version has changed since the original Letter of Qualification (LOQ), Delta Testing and Regression Testing will be required and the Derivative Product will receive a standard LOQ.

2. A Product can be considered a Derivative Product when additional Test Suite options are implemented. The SCO for the Derivative Product is a superset of the original SCO (with new options in the "GlobalPlatform Configuration Description" in the SCO), in that case, the following rules apply:
   - If the Test Suite has not changed since the original Qualified Product, Differential Testing and Regression Testing will be required and the Derivative Product will receive the same renewal date as the original Qualified Product.
   - If the applicable Test Suite version has changed since the original LOQ, full testing will be required and the Derivative Product will receive a standard LOQ.
3. A Product can be considered a Derivative Product when
   a. Same OS ported in a new CHIP but within the same CHIP family (e.g. memory size enhancement, ,…). The SCO for the Derivative Product is a change of the original SCO where changes are allowed only in section A.5,
   b. or a side feature activated or deactivated but this feature is not used by the GP Configuration submitted (such as application emulation, …),

   In that case, the following rules apply:
   - If the Test Suite has not changed since the original Qualified Product, Regression Testing will be required and the Derivative Product will receive the same renewal date as the original Qualified Product.
   - If the applicable Test Suite version has changed since the original Letter of Qualification (LOQ), Delta Testing and Regression Testing will be required and the Derivative Product will receive a standard LOQ.

Note: The sections "Product Specification References" and "Product and Chip Descriptions" should be identical in the original and derivative SCO.

4.5.2 Derivative Product Process

To consider the qualification of a Derivative Product, GlobalPlatform will require that the Derivative Product undergo testing depending on:

- Changes to the Product Qualification Process requirements (e.g. current valid Test Suite version, initial state requirements, etc.) since the original Letter of Qualification was granted.
- Changes between the original Product and the Derivative Product independent of any change to the Product Qualification Process requirements, as described in section 4.6.1.
- Whether the Product Vendor wishes to have an extended qualification date for the Derivative Product.

Any required testing must be performed at a GlobalPlatform Qualified Laboratory. Fees charged by Laboratories to Product Vendors for GlobalPlatform testing services are not included in GlobalPlatform administrative fees and are the responsibility of the Product Vendor.

The GlobalPlatform Compliance Secretariat will not review the Test Report until all required items are received, including payment of all required fees. Section 4.2 describes the detailed qualification procedures.

If the Test Report is acceptable, GlobalPlatform:

- Notifies the Product Vendor.
- Issues a new Letter of Qualification.

Note: Qualification will be granted with the same expiration date as the Original Product except if the Product Vendor wish to perform extended testing to get an extended qualification date (3 years).

Note: Derivative Product process can occur only if the Original Product Letter of Qualification is still valid at the date of receiving the Test Report of the Derivative Product.

- Updates GlobalPlatform website's Qualified Products List.
- Notifies the Qualified Laboratory to retain the Test Report, test logs, and Product samples for three (3) years after the expiration date of the new Letter of Qualification.

4.6 Change Request of a Qualified Product

A Product Vendor may decide to change a Qualified Product.

4.6.1 Definition of a Change Product

A changed Product is a replacement of an already Qualified Product (so the LOQ replaces an existing one).

Changes can be categorized in the following two types:

- Changes follow the definition of a Derivative Product as per section 4.6.1 and therefore Regression Testing and possibly Differential Testing are required..
- Changes do not follow the definition of section 4.6.1 (i.e. any other change has been made) and therefore full testing is required.

4.6.2 Change Product Process

To consider the qualification of a changed Product, GlobalPlatform will require that the changed Product undergo testing depending on:

- Changes to the Product Qualification Process requirements (e.g. current valid Test Suite version, initial state requirements, etc.) since the original Letter of Qualification was granted.
- Changes between the original Product and the changed Product independent of any change to the Product Qualification Process requirements.

The Product Vendor submits:

- A change request identifying the change made to the previously Qualified Product and the reason for the change
- A signed QLA Exhibit A as described in section 4.3. – Electronic signature is preferred.

The administrative fees defined in Annex B.2 apply to change requests and shall be paid to GlobalPlatform by Product Vendors.

Any required testing must be performed at a GlobalPlatform Qualified Laboratory. Fees charged by Laboratories to Product Vendors for GlobalPlatform testing services are not included in GlobalPlatform administrative fees and are the responsibility of the Product Vendor.

The GlobalPlatform Compliance Secretariat will not review the Test Report until all required items are received, including payment of all required fees. Section 4.2 describes the detailed qualification procedures.

If the Test Report is acceptable, GlobalPlatform:

- Notifies the Product Vendor.
- Issues a new Letter of Qualification to replace existing one.

Note: Qualification will be granted with the same qualification date as the initial LOQ.

- Updates GlobalPlatform website's Qualified Products List by replacing LOQ.
- Notifies the Qualified Laboratory to retain the Test Report, test logs, and Product samples for three (3) years after the expiration date of the new Letter of Qualification

4.7 Renewal of Product Qualification

The Product Vendor may choose to submit to GlobalPlatform a request to renew the qualification of a Product. The Product Vendor submits with its request for renewal a signed (preferably electronically) Exhibit A (QLA) as described in section 4.3. It is the Product Vendor's responsibility to submit a Request for Renewal of a Product within six months prior to the expiration date of the Letter of Qualification.

The administrative fees defined in section in Annex B.2 apply to requests for renewal and shall be paid to GlobalPlatform by Product Vendors.

To consider renewal of the qualification, GlobalPlatform will require that the Product meets current and most recent versions of:

- Applicable GlobalPlatform Specifications and Configuration
- Applicable GlobalPlatform test requirements (e.g. current valid Test Suite version, initial state requirements)

Depending on the case, GlobalPlatform requires that the following tests are performed:

Ref: Operation bulletin #10 - July 2015.

Initial Product Renewal

- The Test suite has not been changed since the original Letter of Qualification was granted:
  - No Tests are required
- The Test suite has been changed since the original Letter of Qualification was granted:
  - Delta testing is required

Derivative Product Renewal

- The Test suite has not been changed since the original Letter of Qualification was granted:
  - No Tests are required
- The Test suite has been changed since the original Letter of Qualification was granted:
  - Delta testing is required

Exceptionally, Product Vendor may ask that a derivative product be renewed without any tests (option available in the SCO), but this derogation is only permitted if the three conditions hereunder are met:

- The Derivative product is not a superset of the Initial Product AND
- The Initial product renewal was performed without any 'issue' AND
- During first qualification, the Initial Product had no issue or the Initial Product and Derivative product had the same 'issues' (refer to 4.7.3 NCIA /CAR).

Note: Product Renewal is allowed only 1 time.

Any required testing must be performed at a GlobalPlatform Qualified Laboratory and done prior to the original renewal date. Fees charged by Laboratories to Product Vendors for GlobalPlatform testing services are not included in GlobalPlatform administrative fees and are the responsibility of the Product Vendor.

If the Product meets these requirements, GlobalPlatform will consider renewal of the qualification. The GlobalPlatform Compliance Secretariat will not review the Test Report(s) until all required items are received, including payment of all required fees. Section 4.2 describes the detailed qualification procedures.

If the Product's qualification is renewed, GlobalPlatform:

- Notifies the Product Vendor
- Issues a new Letter of Qualification with a new expiration date.

Note: Renewal will be granted for a maximum of three (3) additional years from the time the renewal is granted.

- Updates GlobalPlatform website's Qualified Products List
- Notifies the Qualified Laboratory to retain the Test Report, test logs, and Product samples for an additional three (3) years after the expiration date of the new Letter of Qualification

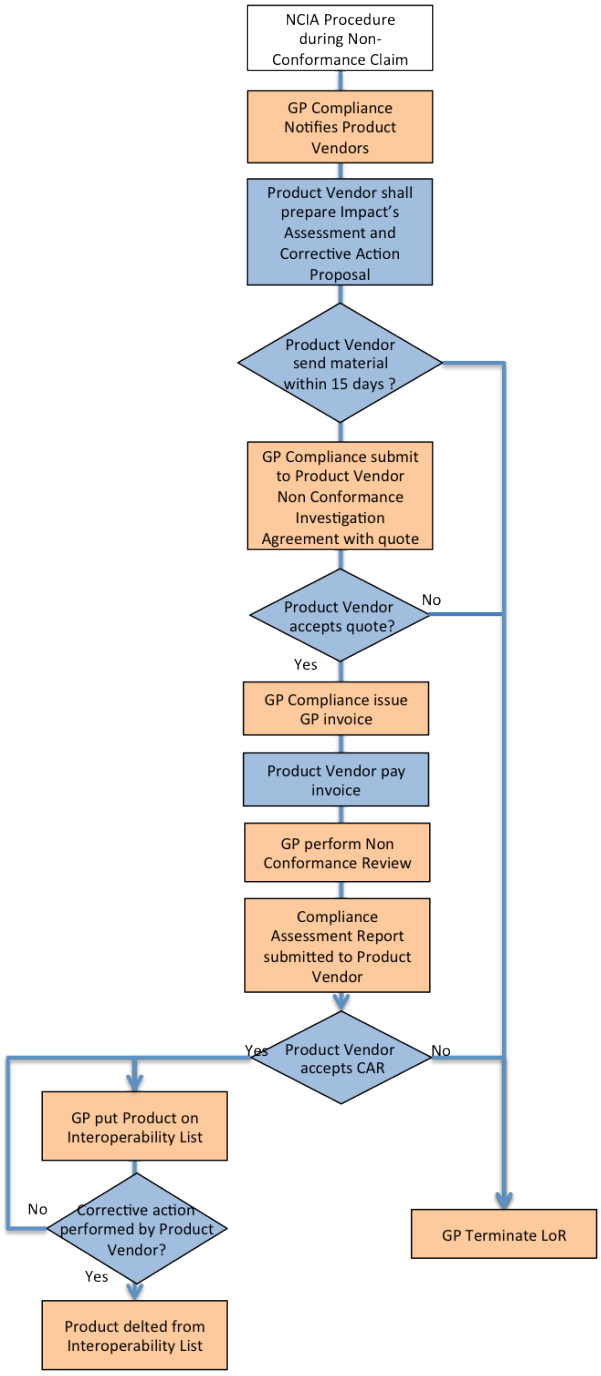
If no renewal request is submitted, the Product will automatically drop from the GlobalPlatform website's Qualified Products List with no notification to the Product Vendor.

5 Non-conformance Investigation

GlobalPlatform accepts notification of non-conformance only if this notification contains all needed details to manage a complete analysis. Upon notification, the GlobalPlatform Compliance Secretariat reviews the non-conformance claim and assesses whether it is indeed an issue related to a Qualified Product or a Qualified Test Tool.

5.1 Non-conformance Related to a Qualified Product

Figure 5-1: Non conformance investigation Flow during Non Conformance Claim



If the non-conformance is related to a Qualified Product:

- GlobalPlatform notifies the Product Vendor that the Qualified Product is potentially non-conformant and requests the Product Vendor's assessment.
- Product Vendor sends to GlobalPlatform its impact assessment and proposal for a corrective action plan.
- GlobalPlatform may terminate the Letter of Qualification if the Product Vendor does not perform its assessment and present an effective corrective action plan within fifteen (15) business days after notice from GlobalPlatform.
- GlobalPlatform reviews the Product Vendor's impact assessment and corrective action plan.
- Until the Product Vendor implements the corrective actions, depending on the severity of the issue, GlobalPlatform may:
- Include the Product in the "Interoperability Issues List" on the GlobalPlatform website (the issues list includes the impact assessment from the Product Vendor) and
- If severe, terminate the Letter of Qualification, see section 5.5.

Note: In all scenarios, the Product is removed from the GlobalPlatform website's Qualified Products List until resolved.

The analysis of the non-conformance impact assessment and corrective action plan by GlobalPlatform is at the Product Vendor's charge.

Upon reception of the impact assessment and corrective action plan from the Product Vendor, the GlobalPlatform Compliance Secretariat sends to the Product Vendor a Non-Conformance Investigation Agreement [NCIA] including an investigation fee quotation.

- Upon acceptance of the Non-Conformance Investigation Agreement by the Product Vendor, the GlobalPlatform Compliance Secretariat pursues in conjunction with the Product Vendor the appropriate investigation and corrective action plan.
- If the Non-Conformance Investigation Agreement is not accepted, the GlobalPlatform Compliance Secretariat does not investigate any further and revokes the Letter of Qualification of the Product.

GlobalPlatform may request the Product Vendor to access all information submitted to the Qualified Laboratory that was part of the initial qualification of the Product.

In the event the investigation is inconclusive or fails to demonstrate the Product's sufficient conformance with GlobalPlatform Specifications, GlobalPlatform may request to retest the Product samples with one or more different Qualified Laboratories and may request that different Product samples be used in such retest before deciding whether to revoke the Letter of Qualification. GlobalPlatform may also request to witness the retest procedures performed by the Qualified Laboratory(ies) before deciding whether to revoke the Letter of Qualification. If not already available and functioning within the Laboratory's premises, such samples should be made available by the Product Vendor to the Qualified Laboratory(ies) at no extra cost and shall pay all expenses related to such retest. GlobalPlatform retains the right to choose the samples when a retest is required.

GlobalPlatform retains the right to retest and perform additional tests on the Product as described in section 4.2.1, in which case the Product Vendor shall supply the needed samples free of charge if not already available and functioning within the Laboratory's premises, and shall pay the Laboratory (in advance when requested by GlobalPlatform) all expenses related to such testing. GlobalPlatform may choose the samples for such retesting. The Product Vendor may not claim or be entitled to receive compensation for any extra costs incurred as a result of such testing and retesting

To resolve the identified issue:

- Product Vendor could submit for qualification a corrected product through the Product Qualification Process as described in section 4.2.1.
- Product Vendor could submit for qualification a modified SCO indicating that the defective option/feature is no longer supported.
- GlobalPlatform could add a new restriction on the Letter of Qualification of the Product.

5.2 Non-conformance Related to a Self-Tested Product

If the non-conformance is related to a Self-Tested Product:

- GlobalPlatform notifies the Product Vendor that the Self-Tested Product is potentially non-conformant and requests the Product Vendor's assessment.
- GlobalPlatform may terminate the Listing Agreement if the Product Vendor does not perform its assessment, present an effective corrective action plan within fifteen (15) business days after notice from GlobalPlatform or submit a new LA for this Product.
- GlobalPlatform reviews the Product Vendor's impact assessment and corrective action plan.

Note: In all scenarios, the Product is removed from the Self-Tested Products List on the GlobalPlatform website until resolved.

The analysis of the non-conformance impact assessment and corrective action plan by GlobalPlatform is at the Product Vendor's charge and subject to the Listing Agreement administrative fees as defined in section 3.4.

5.3 Non-conformance Related to a Test Tool

If the non-conformance is related to a Test Tool,

- GlobalPlatform notifies the Test Tool Vendor that the Test Tool Product is potentially non-conformant and requests the Test Tool Vendor's assessment.
- Test Tool Vendor sends to GlobalPlatform its impact assessment and proposal for a corrective action plan.
- GlobalPlatform may terminate the Letter of Qualification if the Test Tool Vendor does not perform its assessment and present an effective corrective action plan within fifteen (15) business days after notice from GlobalPlatform.
- GlobalPlatform reviews the Test Tool Vendor's impact assessment and corrective action plan.
- Until the Test Tool Vendor implements the corrective actions, depending on the severity of the issue, GlobalPlatform may:
- Include the Test Tool Product in the "Interoperability Issues List" on the GlobalPlatform website (the issues list includes the impact assessment from the Test Tool Vendor) and
- If severe, terminate the Letter of Qualification, see section 5.5.

Note: In all scenarios, the Test Tool Product is removed from the GlobalPlatform list of Qualified Test Tools until resolved.

The analysis of the non-conformance impact assessment and corrective action plan by GlobalPlatform is at the Test Tool Vendor's charge.

Upon reception of the impact assessment and corrective action plan from the Test Tool Vendor, the GlobalPlatform Compliance Secretariat sends to the Test Tool Vendor a Non-Conformance Investigation Agreement including an investigation fee quotation.

- Upon acceptance of the Non-Conformance Investigation Agreement by the Test Tool Vendor, the GlobalPlatform Compliance Secretariat pursues in conjunction with the Test Tool Vendor the appropriate investigation and corrective action plan.
- If the Non-Conformance Investigation is not accepted, the GlobalPlatform Compliance Secretariat does not investigate any further and revokes the Letter of Qualification of the Test Tool.

5.4 Resolution of Non-conformance

Upon successful resolution of the non-conformance issue of a Qualified Product or Test Tool, a new Letter of Qualification will be released but with the same expiration date as the original Letter of Qualification. GlobalPlatform will then restore the Product onto the list of Qualified Products or the Test Tool onto the list of Qualified Test Tools.

Upon successful resolution of the non-conformance of a Self-Tested Product, GlobalPlatform will restore the Product onto the list of Self-Tested Products.

Separately, GlobalPlatform may also assess whether the existing versions of the Test Suite provide adequate coverage. GlobalPlatform may also investigate whether other Qualified Products or Test Tools could have the same issue.

5.5 Termination of Qualification

GlobalPlatform may terminate the Letter of Qualification upon written notice to the Product Vendor or Test Tool Vendor if:

- The Vendor does not abide by the terms of the Letter of Qualification, or the Vendor's manufacturers, distributors, suppliers, or agents take any action which, if taken by the Vendor, would constitute a breach of the terms of the Letter of Qualification, or
- GlobalPlatform notifies the Vendor of a material problem with Vendor’s Qualified Product or Test Tool and
- Vendor does not develop and present to GlobalPlatform for approval an effective plan for corrective actions within fifteen (15) business days after such notice from GlobalPlatform; or
- Vendor fails to complete such corrective actions within a reasonable time after GlobalPlatform’s approval of such plan.

If the Letter of Qualification is terminated, the Vendor must reapply for qualification of its Product or Test Tool.

If the Letter of Qualification is terminated, the Product or Test Tool related to this Letter Of Qualification will be deleted from the list on GlobalPlatform website. If the Letter of Qualification is terminated for any reason:

- The Vendor shall immediately cease any publicity or advertising regarding the Qualification of the Product or Test Tool, including any use of GlobalPlatform Qualification Mark, as permitted under its QLA.
- The Vendor shall take reasonable steps to insure that its clients and customers cease publicity not in conformance with the Letter of Qualification.

6 Test Suite Changes

This chapter discusses the impact on Product Qualification Process procedures when the GlobalPlatform Test Suites change.

6.1 Change to Test Suite Version

GlobalPlatform reserves the right to change Test Cases at any time, for example, in order to increase the accuracy and performance of the tests.

GlobalPlatform will inform all participants of new version(s) of the Test Suite and will set the date(s) for activation of the new version(s) and deactivation of the previous version(s) as described in Figure 6-1: Test Suite Version Change. GlobalPlatform may determine a time period during which either the previous or new Test Suite version(s) may be used in the Product Qualification Process. However, GlobalPlatform shall not be under any obligation to allow a phasing-out of a previous Test Suite version(s).

Upon release of a new version, GlobalPlatform shall indicate whether it is a “Mandatory Update” (an update required by GlobalPlatform) or a “Discretionary Update” (relating solely to functionality that GlobalPlatform deems to be optional).

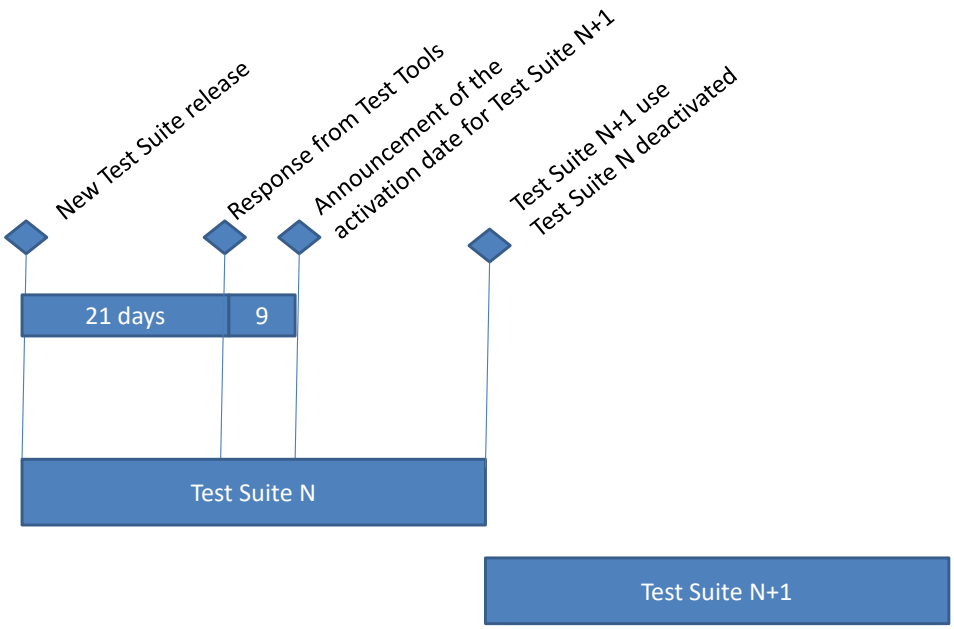
Discretionary Updates may be adopted in a manner determined by the Test Tool Vendor, provided that the Vendor utilizes commercially reasonable efforts to incorporate such Discretionary Update into all new GlobalPlatform Qualified Test Tools within twelve (12) months of the release date.

Ordinarily GlobalPlatform shall release no more than one Mandatory Update per year (but see section 6.2).

Within twenty-one (21) days of the release date of a Mandatory Update, GlobalPlatform shall communicate to all Test Tool Vendors a plan for adoption of Mandatory Updates, including, but not limited to, schedules for incorporation of Mandatory Updates into all new GlobalPlatform Qualified Test Tools as well as schedules for recall of existing products, if necessary. Each Test Tool Vendor shall provide GlobalPlatform with written acceptance of GlobalPlatform’s plan for adoption of Mandatory Updates within twenty-one (21) days of delivery of the plan.

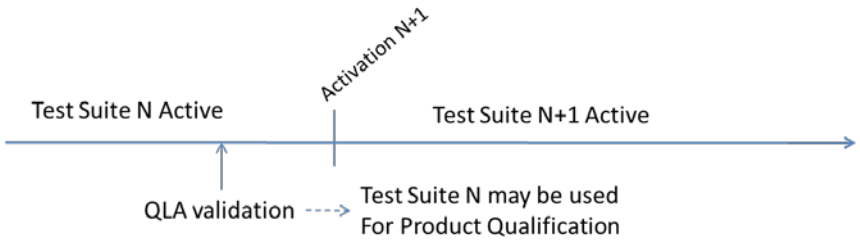
Based on the Test Tool Vendor response, GlobalPlatform will define within thirty (30) days a date of activation of the new Test Suite. All new Products submitted for testing must adhere to the new/updated Test Suite version on the date of activation specified by GlobalPlatform.

Figure 6-1: Test Suite Version Change



Product Vendors may request that their Initial Product be tested using the Test Suite active at the date when the QLA was validated by GlobalPlatform Compliance Secretariat

Figure 6-2: Test Suite Version Change and QLA validation



Derivative Products submitted for qualification after the activation of a new test suite will be tested as follows:

- Regression testing will be performed,
- Delta testing between the previous and the current versions of the Test Suite will be performed but the test results will be listed 'for information' in the test report.
    - If all tests are successful (Regression and Delta), a LOQ referring to the new Test Suite will be issued.
    - If some tests 'fail', a LOQ referring to the previous Test Suite will be issued and the 'fail' tests will be listed in comments.

Note: Test results will be listed 'for information' during the validity period of the Initial Product.

Products submitted for renewal after the activation of a new test suite will require Delta testing; exceptionally, under certain conditions, Product Vendor may ask that a derivative product be renewed without any tests. (For the derogation, refer to section 4.8 Renewal of Product Qualification).

6.2 Mandatory Update for Critical Interoperability Issue

In case of critical interoperability issue, GlobalPlatform may release a Mandatory update at any time even if another Mandatory update has already been published during the year. In this case, the activation date will be five (5) days after this mandatory update release.

6.3 Remove Test from Test Suite

GlobalPlatform may request that a specific test be removed from the Test Suite. The activation date will be five (5) days after the date of the announcement of the removal.

6.4 Test Suite Valid When QLA Submitted

The Test Suite version used for Product testing must still be valid on the day that the Product Vendor submits the Qualification and Listing Agreement (or Exhibit A) to GlobalPlatform. GlobalPlatform reserves the right to immediately require the implementation of a new/updated version(s) of the Test Suite at any time.

7 Roles & Responsibilities

This chapter discusses the roles and responsibilities of the entities involved in the Product Qualification Process.

7.1 GlobalPlatform

GlobalPlatform defines Product Qualification Process requirements and administers the Compliance Secretariat.

GlobalPlatform provides the following services:

- Owns, defines, and maintains the GlobalPlatform Specifications and Configurations
- Defines Product qualification requirements
- Owns, defines, and maintains Test Suites appropriate to test that Products comply with GlobalPlatform Specifications and Configurations
- Owns, defines, and maintains procedures used to perform testing
- Reviews specification corrections, clarifications, and enhancements
- Defines Test Tool and Laboratory qualification requirements for GlobalPlatform defined Test Suites
- Answers queries on GlobalPlatform Specifications, Configurations, Test Suites, and Product Qualification Process procedures
- Manages the Compliance Secretariat
- Manages all Product Qualification Process documents

7.2 Compliance Secretariat

The Compliance Secretariat manages the Product Qualification Process procedures. This includes the administrative functions associated with QLA, completion of contracts of Test Tool Vendors and Laboratories, processing approval requests and fees, issuing letters of approval or rejection, etc. The Compliance Secretariat:

- Evaluates TestFest results and determines whether GlobalPlatform qualification should be granted to a Test Tool
- Evaluates Laboratory documents and determines whether GlobalPlatform qualification should be granted to a Laboratory.
- Manages the Laboratory and Test Tool Vendor appeals process and resolves qualification disputes
- Evaluates Product Supported Configuration Options (SCO) and communicates evaluation results
- Evaluates Product (and Derivative Product) Qualification Requests and communicates evaluation results
- Evaluates Product renewal requests and communicates evaluation results
- Evaluates appropriate resolution of non-conformance issues reported to GlobalPlatform, including additional testing, revision or eventual termination of the Letter of Qualification for a particular Qualified Product (or Test Tool)
- May request to witness the GlobalPlatform test procedures performed by a Qualified Laboratory

- May request that the Product Vendor provide access to all information submitted to, or received from, the Qualified Laboratory as part of the Qualification Process relating to the Vendor's Product

The role also includes communicating Product Qualification Process status to third parties, maintenance of Product Qualification Process information on the GlobalPlatform website, and the maintenance of a database that provides the following:

- Product Qualification Process documentation and forms
- List of GlobalPlatform Qualified Laboratories
- List of GlobalPlatform Qualified Test Tools and versions
- List of GlobalPlatform Qualified Products
- List of GlobalPlatform Self-Tested Products

7.3 Product Vendor

The Product Vendor is responsible for ensuring that all Products deployed are equivalent to those submitted to the Product Qualification Process. Other responsibilities are described in the agreement (QLA or LA) between GlobalPlatform and the Product Vendor.

The Product Vendor must:

- Ensure that the Test Suite and associated Configuration to which its Product is built are based on the most current GlobalPlatform Specifications and are accepted by GlobalPlatform
- Submit a Qualification and Listing Agreement (or only Exhibit A) to GlobalPlatform for each Product submitted for Qualification
- Submit a Listing Agreement (or only Exhibit A) to GlobalPlatform for each Product submitted as Self-Tested
- Pay fee to GlobalPlatform for a review of Test Report associated with the QLA or LA
- Implement the GlobalPlatform Specifications and Configuration
- Upon notification by GlobalPlatform of a Product non-conformance issue, provide GlobalPlatform with an assessment of the issue, propose a plan of corrective actions, and implement the corrective actions agreed with GlobalPlatform
- Ensure that the Qualified Laboratory retains the Test Report, test logs, and Product Samples for three (3) years after the expiration date of the Letter of Qualification (see section 7.7 for details)
- Notify GlobalPlatform of any change in contact information, as described in section 7.6

For a QLA, the Product Vendor must additionally:

- Provide to the Qualified Laboratory(ies) and to the GlobalPlatform Compliance Secretariat a detailed Supported Configuration Options (SCO) of its Product in the format defined by GlobalPlatform
- Supply set(s) of Product Samples as required for testing prior to the start of the Test Session
- When using more than one Qualified Laboratory, ensure that all sets of Product Samples at all Laboratories are for the same version of the SCO and Product

- Ensure that the Product Samples are imprinted with the following information:
  - Product Vendor name
  - Card image number (for Card Product)
  - Product name
  - Date sample produced
- Ensure that if any modification is made to the Product (as defined in section 4.2.2) during the Test Session that a new submission is initiated with a new SCO
- Inform the Qualified Laboratory(ies) when submitting a Qualification and Listing Agreement to GlobalPlatform, to ensure that the Laboratory(ies) has an identical copy of the Test Report, test logs, and Product Samples on file for GlobalPlatform
- Ensure that each Test Report submitted for a specific Product is for the same version of the SCO
- Inform GlobalPlatform of any functional issues found with its Qualified Products after being granted a Letter of Qualification
- Ensure that samples of its Qualified Products remain available to GlobalPlatform for 3 (three) years after the expiration date of the Letter of Qualification

Note: SCO must be submitted only once for a Qualification Request or self-test claim. If the Product Vendor wants change the SCO after submission of the Test Report, GlobalPlatform will consider that a change to the Product and will require a new submission.

Product Vendor grants GlobalPlatform permission to witness the GlobalPlatform test procedures performed by the Qualified Laboratory and to access, upon request, all information submitted to, or received from, the Laboratory as part of the Qualification Process relating to Vendor's Product.

7.4 GlobalPlatform Qualified Laboratories

A GlobalPlatform Qualified Laboratory is a test laboratory that has satisfied all prerequisite requirements to be deemed qualified to perform testing services according to the Product Qualification Process. The Laboratory must:

- Be a GlobalPlatform member in good standing (either Participating or Full membership level)
- Apply to GlobalPlatform for qualification
- Conduct testing in accordance with GlobalPlatform's Product Qualification Process requirements and with GlobalPlatform Qualified Test Tools
- Accept Product Qualification requests only from Product Vendors from which the Laboratory is independent

Note: This independence requirement does not apply to debug sessions or test sessions related to Products not submitted to GlobalPlatform Product Qualification, e.g. self-testing.

- Validate that the SCO is complete and all sections and fields are consistent
- For Card Product only: Identify in the Test Report the reason for any modification made to the card images during the Test Session (without any modification to the Card Product), and include an assessment of the impact to card images and tests performed
- Identify in the Test Report any discrepancy found during the Test Session, either failure of a test or non-conformance to the Configuration
- Issue Test Reports in an electronic format as defined by GlobalPlatform

- Be able to conduct testing for all Test Cases and options defined by GlobalPlatform for the corresponding Configuration
- Maintain Test Reports, test logs, and Product Samples for each Product that is qualified for three years after the expiration date of the Letter of Qualification (see section 7.7 for details)
- Ensure that the Test Tool used to perform the tests remains available to GlobalPlatform for three years after the deactivation date of the Test Suite version
- Provide a quarterly report of testing activities and performance to GlobalPlatform
- Maintain GlobalPlatform qualification status by applying for renewal of qualification every year
- Provide guidance for Test Suite maintenance and evolution
- Notify GlobalPlatform of any change in contact information, as described in section 7.6

Payment of fees for testing tasks undertaken by GlobalPlatform Qualified Laboratories is the responsibility of the entity submitting a Product to the laboratory. GlobalPlatform is not responsible for laboratory testing fees.

7.5 Relationships between Laboratories and Product Vendors

The provisions of contracts entered into between Qualified Laboratories and Product Vendors are entirely outside of GlobalPlatform's scope. However, likely areas for inclusion in such contracts are mentioned below for information purposes only:

- Agreement of mutual cooperation in providing information and assistance where needed
- Agreement from the Product Vendor allowing Laboratory to disclose confidential information to GlobalPlatform as needed
- The number of Product Samples provided to the Laboratory
- Arrangement for the preparation and delivery of Product Samples
- Right of the Laboratory to keep all Product Samples for the duration of the test procedure
- Right of the Laboratory to keep all Product Samples after the Product has received a Letter of Qualification from GlobalPlatform
- Recognition that no infringement on the independence or impartiality of the testing Laboratory will be allowed during or after testing
- Agreement on the ownership and use of Test Results and Test Reports
- Provisions for conflict resolution

7.6 Change in Contact Information

The Product Vendor, Test Tool Vendor, and GlobalPlatform Qualified Laboratory shall inform the Compliance Secretariat (gpcompliance@globalplatform.org) if the company name, ownership, legal entity status, address, or contact information changes from that which was stated in the entity's contract with GlobalPlatform.

Changes impacting company name, ownership, or legal status may require a new agreement with GlobalPlatform. Generally, Letters of Qualification are not reissued when name changes are the result of corporate mergers, sales, or other events covered by the "Assignment" and "Successors and Assigns" sections in the agreement between Vendor or Laboratory and GlobalPlatform.

Modifications to company addresses and contact information will be applied to the GlobalPlatform website, if applicable, and to subsequent communication (e.g. approval notification). Contact information changes will be applied to all listed Qualified Products, Qualified Test Tools, and Qualified Laboratories unless specially stated on the request.

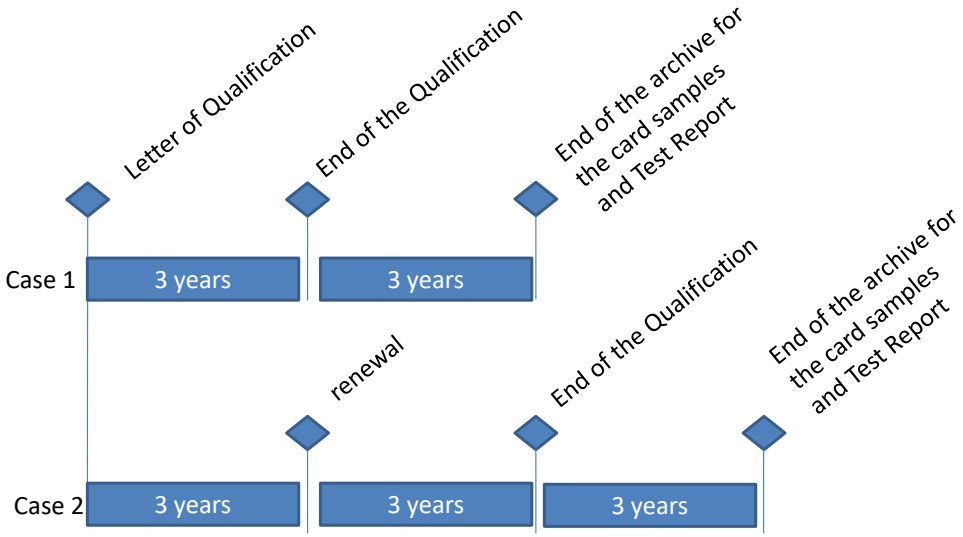
If as a result of a company name change, address change or contact change, GlobalPlatform needs to re-issue an existing Letter of Qualification on explicit request from the Product Vendor, GlobalPlatform will request an administrative fee per LOQ reissuance (B.2). Please note that LOQs are issued electronically only.

7.7 Time Frame for Archive

In Figure 7-1, Case 1 represents a Product Vendor that doesn't request a renewal. In this case, the Test Report, test logs, and Product Samples must be maintained and available to GlobalPlatform for a total of six (6) years.

In Case 2, the Product Vendor requests a renewal of the qualification. If accepted by GlobalPlatform, the Test Report, test logs, and Product Samples must be maintained and available to GlobalPlatform for a total of nine (9) years.

Figure 7-1: Archive Time Frame



Annex A Specific Product Configurations

This annex provides information that is specific to selected GlobalPlatform Configurations that the Product Vendor may submit for qualification.

A.1 GlobalPlatform Card Configuration Supporting Multiple Communication Protocols

The Product submitted can be activated with several communication protocols (e.g. T=0 and Contactless Type A). By parameter setting, without changing any component, the Product can be configured according to one or the other of these protocols.

The Product Vendor will:

Submit the card as a single Product for qualification:

- Submit a single QLA.
- Submit a single SCO (listing the protocols supported in question A.5.12).

The Qualified Laboratory will:

- Run the following Test Session:
  - Full testing using one of the protocols
  - Regression testing using the alternative protocols (treating it as a Derivative Product)
- Submit the result in a single Test Report.

Note: If a Compliance Assessment Report (CAR) has been issued, all tests listed in the CAR shall be run with both protocols.

GlobalPlatform will:

Issue a single LOQ containing a comment stating the protocols that the product supports.

A.2 GlobalPlatform Card Configuration Supporting Single Wire (SWP/HCI) Protocol Test Suite

The Product submitted can be tested with a configuration and with the SWP and HCI Test Suite.

Annex B Fees Structures

The fees charged by GlobalPlatform are intended to cover the administrative costs incurred by GlobalPlatform in managing the Self-Testing process and the Product Qualification process. These processes include, but are not limited to:

- Review of claims and other documents provided by Product Vendors (Self-Testing),
- Review of Test Report and other documents provided by Product Vendors (Product Qualification),
- Updates to the Product Qualification Process documentation, GlobalPlatform Specifications, GlobalPlatform Configurations, and Test Suites,
- Qualification of Test Tools,
- Maintenance of the GlobalPlatform website, including lists of Self-Tested Products and GlobalPlatform Qualified Test Tools.

B.1 The Self-Test Claim Fees Structure

The following fees shall be paid to GlobalPlatform by Product Vendors:

Table 7-1: Self-Test Fees Structure

	Non-GlobalPlatform member Product Vendor	GlobalPlatform member Product Vendor
Review of a self-test claim	US $4,000	US $2,000
SCO resubmission due to a declined SCO (incorrect SCO submitted)	US $500	
SCO replacement (starting with the second replacement	US $500	

B.2 Product Qualification Fees Structure

The following fees shall be paid to GlobalPlatform by Product Vendors:

Table 7-2: Product Qualification Fees Structure

	Non-GlobalPlatform member Product Vendor	GlobalPlatform member Product Vendor
Review of a Qualification Request (Multi Configurations/Extensions or Multi Communication Protocols)	US $9,800	US $5,000
Review of a Qualification Request (Single configuration and single Communication Protocol)	US $7,800	US $3,900
Review of a Qualification Request for a Derivative Product (see section 4.5).	US $2,800	
Review of a Product Change Request (see section 4.6).	US $2,800	
Review of a Request for Renewal of an already Qualified Product (see section 4.7).	US $2,000	
Administrative fees for LOQ reissuance following Company name change, Address change, etc.	US $500	
SCO resubmission due to a declined SCO (incorrect SCO submitted)	US $500	
SCO replacement (starting with the second replacement	US $500	

Note: Fees charged by Qualified Laboratories to Product Vendors for GlobalPlatform testing services are not included in the above fees and are the responsibility of the Product Vendor.

Fees payment

GlobalPlatform Compliance Secretariat will not review the Test Reports until payment of all required fees are received.

However, it will be possible to derogate from this rule and accept a delay of payment (limited to 45 days) if the Product Vendor:

- Is a GlobalPlatform Full or Participating Member in "good standing" (It has paid all Membership fees for the fiscal year and has no other outstanding invoices to GlobalPlatform including but not limited to invoices related to other LOQs),
- Has issued a Purchase Order for the full amount of fees due for the given product (including but not limited to QLA fees, change fees, non-conformance fees, etc.),
- Has established a history of payment with GlobalPlatform by already paying in full five (5) LOQs,
- Has no other LOQ issued on credit and prior to payment in full of all relevant fees to GlobalPlatform,
- Has paid within 45 days the fees for LOQ already issued in the past on credit and prior to payment in full of all relevant fees to GlobalPlatform.

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